

CHAPTER 4.1.2.

WHITE SPOT DISEASE

Article 4.1.2.1.

The disease agent of white spot disease (WSD) is white spot virus (WSV) in the genus *Whispovirus*. Among the synonyms commonly used in the scientific literature and official documents include: white spot bacilliform virus (WSBV) and penaeid rod-shaped DNA virus (PRDV) and other names as listed in the *Aquatic Manual* chapter on this disease.

Article 4.1.2.2.

For the purpose of this *Aquatic Code*, all decapod (Order Decapoda) crustaceans from marine, brackish water, or freshwater sources are potential hosts for white spot disease. White spot disease is potentially lethal to most commercially cultivated penaeid (Family Penaeidae) shrimps and prawns.

Article 4.1.2.3.

The disease agent listed in Article 4.1.2.1 can also cause asymptomatic infection in their respective susceptible species listed in Article 4.1.2.2.

Article 4.1.2.4.

Experimental WSD infections have been reported in many decapod families where natural infections have not been reported.

Article 4.1.2.5.

Suspect cases of natural infection with the agent listed in Article 4.1.2.1 in species other than those listed in Articles 4.1.2.2 and 4.1.2.3, should be referred immediately to the appropriate OIE Reference Laboratory, whether or not clinical signs are associated with the findings.

Article 4.1.2.6.

Methods for surveillance, diagnosis and confirmatory identification of the disease agent are provided in the *Aquatic Manual*.

WSD free country

Article 4.1.2.7.

A country may be recognised as free of WSD if it meets the conditions in Articles 4.1.2.8 or 4.1.2.9.

If a country shares a water resource (coastal zone, gulf, inland farming area, etc.) with one or more other countries, it can only be declared a WSD free country if all the area covered by the shared water resource is declared free *zones* (see Article 4.1.2.10).

Article 4.1.2.8.

A country where none of the species listed in Articles 4.1.2.2 and 4.1.2.3 is present

OR

Where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from WSD when *prescribed biosecurity conditions* have been in place continuously in the country for at least the previous 2 years as follows:

- a) WSD is compulsorily notifiable to the *Competent Authority*, including notification of suspicion; and
- b) an early detection system is in place within the country enabling the *Competent Authority* to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and training of veterinarians or crustacean health specialists in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) conditions applied to imports to prevent the introduction of WSD (e.g. with importation of live crustaceans for aquaculture purposes or *commodity* products intended for reprocessing prior to marketing, etc.) into the country are in place (see Section 1.4).

Article 4.1.2.9.

A country where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from WSD when it meets the *prescribed biosecurity conditions* detailed in Article 4.1.2.8.

AND

targeted surveillance as described in chapters 1.4 and 4.1.2 in the *Aquatic Manual* has been in place for at least the past 2 years in *aquaculture establishments* holding any of the susceptible species listed in Articles 4.1.2.2 and 4.1.2.3 without detection of the disease agent listed in Article 4.1.2.1. If there are areas of the country in which there are no such aquaculture establishments but in which there are wild populations of any of the susceptible species listed in Articles 4.1.2.2 and 4.1.2.3, those populations must be included in the *targeted surveillance*.

WSD free zone

Article 4.1.2.10.

A WSD free *zone* may be established within the *territory* of one or more countries of infected or unknown status if the *zone* meets the conditions referred to in Articles 4.1.2.11 or 4.1.2.12. Such WSD free zones must comprise: one or more distinct water resource (coastal zone, gulf, inland farming area, etc.). Such zones must be clearly delineated on a map of the *territory* of the country(ies) concerned by the *Competent Authority*.

If a zone extends over more than one country, it can only be declared an WSD free zone if the conditions outlined below apply to all shared areas of the zone.

Article 4.1.2.11.

A zone where none of the species listed in Articles 4.1.2.2 and 4.1.2.3 is present

OR

where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from WSD when prescribed biosecurity conditions have been in place continuously in the zone for at least the previous 2 years as follows:

- a) WSD is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) an early detection system is in place within the zone enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and veterinarians or crustacean health specialists are trained in detecting and reporting unusual disease occurrence; and
- c) infection is not known to be established in wild populations; and
- d) official control measures to prevent the introduction of WSD (e.g. with importation of live crustaceans for aquaculture purposes or commodity products intended for reprocessing prior to marketing, etc.) into the zone are in place.

Article 4.1.2.12.

A zone where the last known occurrence was within the previous 25 years or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from WSD when it meets the prescribed biosecurity conditions detailed in Article 4.1.2.11.

AND

targeted surveillance as described in chapters 1.4 and 4.1.2 in the Aquatic Manual has been in place for at least the past 2 years in aquaculture establishments holding any of the susceptible species listed in Articles 4.1.2.2 and 4.1.2.3 without detection of the disease agent in Article 4.1.2.1. If there are areas of the zone in which there are no such aquaculture establishments but in which there are wild populations of any of the susceptible species listed in Articles 4.1.2.2 and 4.1.2.3, those populations must be included in the targeted surveillance.

WSD free aquaculture establishment

Article 4.1.2.13.

A WSD free aquaculture establishment may be located within a WSD infected country or zone or within a country or zone of unknown status with respect to WSD if it meets the conditions referred to in Articles 4.1.2.14 or 4.1.2.15. Such WSD free aquaculture establishments must be supplied by a contained water source (e.g. a well, borehole, closed recirculation system, etc.) in which the culture

system water cannot be contaminated by the disease agent and is inaccessible to susceptible species or potential carriers from the natural environment.

Article 4.1.2.14.

An aquaculture establishment where none of the species listed in Articles 4.1.2.2 and 4.1.2.3 is present

OR

where there has never been any observed occurrence of the disease despite conditions that are conducive to its clinical expression

may be considered free from WSD when prescribed biosecurity conditions have been in place continuously in the aquaculture establishment for at least the previous 2 years as follows:

- a) WSD is compulsorily notifiable to the Competent Authority, including notification of suspicion; and
- b) the aquaculture establishment complies with an early detection system enabling the Competent Authority to undertake effective disease investigation and reporting, including access to laboratories capable of diagnosing and differentiating relevant diseases, and the staff are trained in detecting and reporting unusual disease occurrence; and
- c) official control measures to prevent the introduction of WSD into the aquaculture establishment are in place.

Article 4.1.2.15.

An aquaculture establishment where the last known occurrence of WSD was within the previous 25 years, or its infection status was previously unknown, for example because of the absence of conditions conducive to clinical expression, may be considered free from WSD when it meets the prescribed biosecurity conditions detailed in Article 4.1.2.14.

AND

targeted surveillance as described in chapters 1.4 and 4.1.2 in the Aquatic Manual has been in place for at least the past 2 years without detection of the disease agents listed in Article 4.1.2.1.

Article 4.1.2.16.

Maintenance of free status

A country, zone or aquaculture establishment that is recognised as free from WSD following the provisions of Articles 4.1.2.8, 4.1.2.11 and 4.1.2.14 may maintain its official status as WSD free provided that the prescribed biosecurity conditions are continuously maintained.

A country, zone or aquaculture establishment that is recognised free from WSD following the provisions of Articles 4.1.2.9, 4.1.2.12 and 4.1.2.15 may discontinue targeted surveillance and maintain its official status as WSD free provided that conditions that are conducive to clinical expression of WSD exist and the prescribed biosecurity conditions are continuously maintained. In cases where conditions are not

conducive to clinical expression of WSD, *targeted surveillance* will need to be continued, but at a level commensurate with the degree of risk assessed by the *Competent Authority*.

Article 4.1.2.17.

Suspension and restoration of free status

If a *Competent Authority* has reason to believe that any of the conditions for recognition of country, zone or *aquaculture establishment* freedom has been breached, it should immediately suspend the free status, implement any necessary containment measures and conduct an investigation.

If the investigation confirms that the suspected breach has not taken place, free status may be restored.

If the investigation confirms that the suspected breach has taken place, suspension of free status is continued. The *Competent Authority* should carry out an epizootiological investigation to determine the likelihood of disease entry and establishment and re-establish the conditions in Articles 4.1.2.7, 4.1.2.9, 4.1.2.10, 4.1.2.12, 4.1.2.13 and 4.1.2.15 if free status is to be restored. Steps leading to re-establishment of free status may require depopulation, *fallowing*, *disinfection* and other measures as described in chapter 1.6.

Article 4.1.2.18.

When importing live *crustaceans* of any life stage, the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country*.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of production of the consignment is a country, zone or *aquaculture establishment* officially declared WSD free.

The certificate shall be in accordance with Model Certificate No. 4 given in Part 6 of this *Aquatic Code*.

Article 4.1.2.19.

If the *Competent Authority* of the *exporting country* cannot certify the place of production of the consignment as being free from WSD, the importing country should assess the *risks* associated with the importation of live *crustaceans* of any life stage prior to a decision on whether to authorise an importation.

Article 4.1.2.20.

When importing dead *crustaceans*, the *Competent Authority* of the *importing country* should require that the consignment be accompanied by an *international aquatic animal health certificate* issued by the *Competent Authority* of the *exporting country* or a *certifying official* approved by the *importing country*.

This *certificate* must certify, on the basis of a surveillance scheme conducted according to the procedures described above and detailed in the *Aquatic Manual*, whether or not the place of

production of the consignment is a country, zone or aquaculture establishment officially declared WSD free.

The certificate shall be in accordance with Model Certificate No. 5 given in Part 6 of this Aquatic Code.

Article 4.1.2.21.

If the Competent Authority of the exporting country cannot certify the place of production of the consignment as being free from WSD, the importing country should assess the risks associated with the importation of whole, or parts of, dead crustaceans prior to a decision on whether to authorise an importation.

Rather than refusing such imports, the importing country may opt to manage these risks, if the consignment is:

1. destined directly for human consumption without further processing, or
2. destined for processing in establishments with safe disposal of processing waste in a manner that ensures isolation from the local environment to avoid the potential introduction of WSD,
or
3. has been treated, e.g. cooked, such that the white spot virus is inactivated.

Article 4.1.2.22.

The Competent Authorities of exporting countries should not authorise the exportation of live or dead crustaceans of any life stage from populations known to be infected with WSD without the full agreement of the importing country.